Abstract

The instant invention relates to new compounds of the formula I

$$R_{1}-X_{1}-O = \begin{bmatrix} O & & & & & & \\ O & & & & & \\ C & & & & & \\ R_{6} & & & & & \\ R_{6} & & & & & \\ \end{bmatrix} \begin{bmatrix} R_{7} & & & & \\ R_{7} & & & \\ C & & & & \\ R_{8} & & & & \\ \end{bmatrix} \begin{bmatrix} O & & & & \\ C & & & \\ C & & & \\ M & & & \\ \end{bmatrix}$$
(I)

wherein
$$R_0 \text{ is } -\overset{R_3}{\overset{1}{\text{C}}} , \text{-O-, -S-, -SO-, -SO}_2\text{- or } -\overset{0}{\overset{11}{\text{C}}} , \qquad \left(\begin{array}{c} \\ \\ \end{array} \right)$$

 R_1 and R_2 are each independently of the other a fluorine containing group, R_3 and R_4 are each independently of the other hydrogen, a fluorine containing group, C_1 - C_{12} alkyl, phenyl or

$$- \left(\begin{array}{c} O \\ C \\ C \\ C \end{array} \right) - \left(\begin{array}{c} R_5 \\ R_6 \\ R_8 \end{array} \right) - \left(\begin{array}{c} R_7 \\ C \\ R_8 \end{array} \right) - \left(\begin{array}{c} O \\ C \\ C \\ R_9 \end{array} \right) + \left(\begin{array}{c} O \\ C \\ C \\ R_9 \end{array} \right) + \left(\begin{array}{c} O \\ C \\ C \\ R_9 \end{array} \right) + \left(\begin{array}{c} O \\ C \\ R_9 \end{array} \right)$$

 R_4 , together with the carbon atom to which they are bonded, form a C_5 - C_8 -cycloalkylidene ring that is unsubstituted or substituted by from 1 to 3 C_1 - C_4 alkyl groups;

 R_5 , R_6 , R_7 and R_8 are each independently of the other hydrogen, C_1 - C_{12} alkyl or C_3 - C_{12} alkenyl, X_1 and X_2 are each independently of the other a direct bond or C_1 - C_{12} alkylene, m is 1 to 10'000, and

n is 0 to 10'000.

These new compounds of the formula I are useful as reducers of surface energy for organic materials such as polycarbonates, polyesters or polyketones or their mixtures, blends or alloys. Polymers with such a reduced surface energy possess an "easy to clean", "self-cleaning" "antisoiling", "soil-release" "antigraffiti", "oil resistance", "solvent resistance", "chemical resistance", "self lubricating", "scratch resistance", "low moisture absorption" and "hydrophobic" surface.